AMENDMENTS TO THE CLAIMS

1. (Currently amended): A logically partitioned data processing system, comprising:

a plurality of logical partitions;

a plurality of operating systems, each assigned to a separate one of the plurality of logical partitions;

a plurality of assignable resources, wherein each of the plurality of assignable resources is assigned to one of the plurality of logical partitions;

at least one non-assignable resource; and

a hypervisor, wherein the hypervisor provides a set of services to each of the plurality of logical partitions, one of said set of services performing modifications to the non-assignable resource, in response to an operating system request to directly access said non-assignable resource, without allowing the operating system to directly access the non-assignable resource. ~~allowing a desired result to be achieved by each operating system without modifying the non-assignable resource.~~

2. (Original): The logically partitioned data processing system as recited in claim 1, wherein the set of services comprise a service for creating a new translation table for mapping a change in a logical address to a physical address without modifying an existing translation table.

3. (Original): The logically partitioned data processing system as recited in claim 2, wherein the existing translation table is a page frame table.

4. (Original): The logically partitioned data processing system as recited in claim 1, wherein the non-assignable resource is a page frame table.

5. (Original): The logically partitioned data processing system as recited in claim 1, wherein the non-assignable resource is a mode of operation of a processor.

6. (Original): The logically partitioned data processing system as recited in claim 1, wherein instructions for executing the hypervisor are contained within firmware.

7. (Currently amended): A method for protecting the integrity of a logically partitioned data processing system, the method comprising:

receiving, at a hypervisor, a request from an operating system to perform an operation;

said data processing system including said hypervisor and a platform that includes a plurality of logical partitions, a plurality of operating systems each assigned to a separate one of the plurality of logical partitions, a plurality of assignable resources wherein each of the plurality of assignable resources is assigned to one of the plurality of logical partitions, and at least one unassigned resource;

providing, by the hypervisor, a set of services, to each of the plurality of logical partitions, that perform modifications to the unassigned resource without allowing the operating system to directly access the unassigned resource; and

responsive to a determination that the request would not result in direct access by the operating system to said [[an]] unassigned resource, performing the operation.

8. (Currently amended): The method as recited in claim 7, further comprising:

responsive to a determination that the request would result in direct access by the operating system to said [[an]] unassigned resource, refraining from performing the operation.

9. (Original): The method as recited in claim 7, wherein the request is a request to map a partition resource to a memory address and performing the operation comprises creating a translation table entry to map the memory address to an entry in a page frame table, wherein the entry in the page frame table corresponds to the partition resource.

10. (Original): The method as recited in claim 7, wherein the hypervisor is implemented as firmware.

11. (Currently amended): A method ~~in an operating system~~ executing within a logically partitioned data processing system, the method comprising:

said data processing system including a hypervisor and a platform that includes a plurality of logical partitions, a plurality of operating systems each assigned to a separate one of the plurality of logical partitions, and a system resource;

receiving a request from an operating system to directly access said system resource to modify said system resource to enable said system resource to perform a particular task;

~~determining that a system resource needs to be modified;~~

determining whether direct access by said operating system to said system resource is permitted;

responsive to a determination that the system resource is one for which direct access is denied to the operating system, requesting a service from [[a]] said hypervisor to perform said particular task, wherein said particular task is performed without permitting said operating system to directly access said system resource. ~~accomplish a functionally equivalent task.~~

12. (Currently amended): The method as recited in claim 11, further comprising:

responsive to a determination that the system resource is not one for which direct access is denied to the operating system, directly accessing the system resource to modify said system resource to perform said particular task ~~apply the modification~~.

13. (Original): The method as recited in claim 11, wherein the hypervisor is implemented as firmware.

14. (Currently amended): A computer program product in computer readable media for use in a data processing system for protecting the integrity of a logically partitioned data processing system, the computer program product comprising:

[[first]] instructions for receiving, at a hypervisor, a request from an operating system to perform an operation;

said data processing system including said hypervisor and a platform that includes a plurality of logical partitions, a plurality of operating systems each assigned to a separate one of the plurality of logical partitions, a plurality of assignable resources wherein each of the plurality of assignable resources is assigned to one of the plurality of logical partitions, and at least one unassigned resource;

instructions for providing, by the hypervisor, a set of services to each of the plurality of logical partitions that perform modifications to the unassigned resource, in response to an operating system request to access said unassigned resource, without allowing the operating system to directly access the unassigned resource; and

~~second~~ instructions, responsive to a determination that the request would not result in direct access by the operating system to [[an]] said unassigned resource, for performing the operation.

15. (Currently amended): The computer program product as recited in claim 14, further comprising:

[[third]] instructions, responsive to a determination that the request would result in direct access by the operating system to [[an]] said unassigned resource, for refraining from performing the operation.

16. (Original): The computer program product as recited in claim 14, wherein the request is a request to map a partition resource to a memory address and performing the operation comprises creating a translation table entry to map the memory address to an entry in a page frame table, wherein the entry in the page frame table corresponds to the partition resource.

17. (Original): The computer program product as recited in claim 14, wherein the hypervisor is implemented as firmware.

18. (Currently amended): A computer program product in a computer readable media for use in a logically partitioned data processing system for providing modification of

system resources by an operating system executing within the logically partitioned data processing system, the computer program product comprising:

~~first instructions for determining that a system resource needs to be modified;~~

said data processing system including a hypervisor and a platform that includes a plurality of logical partitions, a plurality of operating systems each assigned to a separate one of the plurality of logical partitions, and a system resource;

instructions for receiving a request from an operating system to directly access said system resource to modify said system resource to enable said system resource to perform a particular task;

instructions for determining whether direct access by said operating system to said system resource is permitted;

~~second~~ instructions, responsive to a determination that the system resource is one for which direct access is denied to the operating system, for requesting a service from [[a]] said hypervisor to perform said particular task, wherein said particular task is performed without permitting said operating system to directly access said system resource. ~~accomplish a functionally equivalent task.~~

19. (Currently amended): The computer program product as recited in claim 18, further comprising:

[[third]] instructions, responsive to a determination that the system resource is not one for which direct access is denied to the operating system, for directly accessing the system resource to modify said system resource to perform said particular task ~~apply the modification~~.

20. (Original): The computer program product as recited in claim 18, wherein the hypervisor is implemented as firmware.

21. (Original): The computer program product as recited in claim 18, wherein the computer program product comprises an operating system.

22. (Currently amended): A system for protecting the integrity of a logically partitioned data processing system, the system comprising:

[[first]] means for receiving, at a hypervisor, a request from an operating system to perform an operation;

said data processing system including said hypervisor and a platform that includes a plurality of logical partitions, a plurality of operating systems each assigned to a separate one of the plurality of logical partitions, a plurality of assignable resources wherein each of the plurality of assignable resources is assigned to one of the plurality of logical partitions, and at least one unassigned resource;

said hypervisor for providing a set of services to each of the plurality of logical partitions that perform modifications to the unassigned resource, in response to an operating system request to access said unassigned resource, without allowing the operating system to directly access the unassigned resource; and

~~second~~ means, responsive to a determination that the request would not result in direct access by the operating system to [[an]] said unassigned resource, for performing the operation.

23. (Currently amended): The system as recited in claim 22, further comprising:

[[third]] means, responsive to a determination that the request would result in direct access by the operating system to [[an]] said unassigned resource, for refraining from performing the operation.

24. (Original): The system as recited in claim 22, wherein the request is a request to map a partition resource to a memory address and performing the operation comprises creating a translation table entry to map the memory address to an entry in a page frame table, wherein the entry in the page frame table corresponds to the partition resource.

25. (Original): The system as recited in claim 22, wherein the hypervisor is implemented as firmware.

26. (Currently amended): A system for providing for modification of system resources by an operating system within a logically partitioned data processing system, the system comprising:

[[first]] means for determining that a system resource needs to be modified;

said data processing system including a hypervisor and a platform that includes a plurality of logical partitions, a plurality of operating systems each assigned to a separate one of the plurality of logical partitions, and a system resource;

means for receiving a request from an operating system to directly access said system resource to modify said system resource to enable said system resource to perform a particular task;

means for determining whether direct access by said operating system to said system resource is permitted;

~~second~~ means, responsive to a determination that the system resource is one for which direct access is denied to the operating system, for requesting a service from [[a]] said hypervisor to perform said particular task, wherein said particular task is performed without permitting said operating system to directly access said system resource. ~~accomplish a functionally equivalent task.~~

27. (Currently amended): The system as recited in claim 26, further comprising:

[[third]] means, responsive to a determination that the system resource is not one for which direct access is denied to the operating system, for directly accessing the system resource to modify said system resource to perform said particular task. ~~apply the modification.~~

28. (Original): The system as recited in claim 26, wherein the hypervisor is implemented as firmware.